

**Amendments to the Specification:**

Please replace the Abstract with the following amended Abstract. The attached sheet includes an unmarked replacement copy of the Abstract.

A heat transfer regulating mixture is provided, the mixture having a metallic component A with a melting point  $T_A$  and a particulate ceramic component B which is non-wettable by the metallic component A, non-reactive therewith and which has a melting temperature  $T_B$  which is higher than both the temperature  $T_A$  and a desired operating temperature  $T_D$  which is also higher than  $T_A$ . The metallic component A and ~~[[the]]~~ their particulate ceramic component B and the respective amounts will typically be selected to have a higher thermal resistivity below  $T_A$  than above  $T_A$ . The heat transfer regulating mixture may be incorporated in a thermal flux regulator having the mixture within an enclosure surrounding a heat generating reactor structure.